

Claims

- [c1] 1.A composition comprising poly(arylene ether) resin and a hydrogenated block copolymer of an alkenyl aromatic compound and a conjugated diene, wherein the hydrogenated block copolymer has up to about 20 percent residual pendant aliphatic unsaturation and at least about 30 percent residual in-chain aliphatic unsaturation.
- [c2] 2.The composition of Claim 1, wherein the poly(arylene ether) resin is present in an amount of about 10 to about 98 weight percent, based on the total weight of the composition.
- [c3] 3.The composition of Claim 1, further comprising a poly(alkenyl aromatic) resin.
- [c4] 4.The composition of Claim 3, wherein the poly(alkenyl aromatic) resin is present in an amount up to about 90 weight percent, based on the total weight of the composition.
- [c5] 5.The composition of Claim 3, wherein the poly(alkenyl aromatic) resin is a rubber-modified poly(alkenyl aromatic) resin.
- [c6] 6.The composition of Claim 1, wherein hydrogenated block copolymer of an alkenyl aromatic compound and a conjugated diene is present in an amount of about 2 to about 40 weight percent, based on the total weight of the composition.

- [c7] 7.The composition of Claim 1, wherein the poly(arylene ether) resin has an intrinsic viscosity of about 0.1 to about 0.6 deciliter per gram as measured in chloroform at 25°C.
- [c8] 8.The composition of Claim 1, wherein hydrogenated block copolymer of an alkenyl aromatic compound and a conjugated diene is a styrene-(butadiene-butylene)-styrene block copolymer.
- [c9] 9.The composition of Claim 1, further comprising one or more additives selected from the group consisting of stabilizers, mold release agents, processing aids, flame retardants, drip retardants, nucleating agents, UV blockers, dyes, pigments, fillers, conductive fillers, antioxidants, anti-static agents, and blowing agents.
- [c10] 10.An article comprising the composition of Claim 1.
- [c11] 11.A composition comprising poly(arylene ether) resin, a rubber-modified poly(alkenyl aromatic) resin and a styrene-(butadiene-butylene)-styrene block copolymer.
- [c12] 12.A method of making an article comprising molding a composition comprising poly(arylene ether) resin and a hydrogenated block copolymer of an alkenyl aromatic compound and a conjugated diene, wherein the hydrogenated block copolymer has up to about 20 percent residual pendant aliphatic unsaturation and at least about 30 percent residual

in-chain aliphatic unsaturation.

- [c13] 13.The method of Claim 12, wherein the poly(arylene ether) resin is present in an amount of about 10 to about 98 weight percent, based on the total weight of the composition.
- [c14] 14.The method of Claim 12, wherein the composition further comprises a poly(alkenyl aromatic) resin.
- [c15] 15.The method of Claim 14, wherein the poly(alkenyl aromatic) resin is present in an amount up to about 90 weight percent, based on the total weight of the composition.
- [c16] 16.The method of Claim 14, wherein the poly(alkenyl aromatic) resin is a rubber-modified poly(alkenyl aromatic) resin.
- [c17] 17.The method of Claim 12, wherein hydrogenated block copolymer of an alkenyl aromatic compound and a conjugated diene is present in an amount of about 2 to about 40 weight percent, based on the total weight of the composition.
- [c18] 18.The method of Claim 12, wherein the poly(arylene ether) resin has an intrinsic viscosity of about 0.1 to about 0.6 deciliter per gram as measured in chloroform at 25°C.
- [c19] 19.The method of Claim 12, wherein hydrogenated block copolymer of an alkenyl aromatic compound and a conjugated diene is a styrene-(butadiene-butylene)-styrene block

copolymer.

- [c20] 20. The method of Claim 12, further comprising one or more additives selected from the group consisting of stabilizers, mold release agents, processing aids, flame retardants, drip retardants, nucleating agents, UV blockers, dyes, pigments, fillers, conductive fillers, antioxidants, anti-static agents, and blowing agents.
- [c21] 21. The method of Claim 12, wherein molding comprises injection molding.
- [c22] 22. An article made by the method of Claim 12.
- [c23] 23. A composition comprising poly(arylene ether) resin, poly(alkenyl aromatic) resin and a hydrogenated block copolymer of an alkenyl aromatic compound and a conjugated diene, wherein the hydrogenated block copolymer has up to about 20 percent residual pendant aliphatic unsaturation and at least about 30 percent residual in-chain aliphatic unsaturation.
- [c24] 24. The composition of Claim 23, wherein the poly(arylene ether) resin is present in an amount of about 10 to about 98 weight percent, based on the total weight of the composition.
- [c25] 25. The composition of Claim 23, wherein the poly(alkenyl aromatic) resin is present in an amount up to about 90 weight percent, based on the total weight of the composition.

- [c26] 26.The composition of Claim 23, wherein the poly(alkenyl aromatic) resin is a rubber-modified poly(alkenyl aromatic) resin.
- [c27] 27.The composition of Claim 23, wherein hydrogenated block copolymer of an alkenyl aromatic compound and a conjugated diene is present in an amount of about 2 to about 40 weight percent, based on the total weight of the composition.
- [c28] 28.The composition of Claim 23, wherein the poly(arylene ether) resin has an intrinsic viscosity of about 0.1 to about 0.6 deciliter per gram as measured in chloroform at 25°C.
- [c29] 29.The composition of Claim 23, wherein hydrogenated block copolymer of an alkenyl aromatic compound and a conjugated diene is a styrene-(butadiene-butylene)-styrene block copolymer.
- [c30] 30.The composition of Claim 23, further comprising one or more additives selected from the group consisting of stabilizers, mold release agents, processing aids, flame retardants, drip retardants, nucleating agents, UV blockers, dyes, pigments, fillers, conductive fillers, antioxidants, anti-static agents, and blowing agents.
- [c31] 31.A method of making an article comprising molding a composition comprising poly(arylene ether) resin, poly(alkenyl aromatic) resin and a hydrogenated block copolymer of an

alkenyl aromatic compound and a conjugated diene, wherein the hydrogenated block copolymer has up to about 20 percent residual pendant aliphatic unsaturation and at least about 30 percent residual in-chain aliphatic unsaturation.

[c32] 32.A composition consisting essentially of a poly(arylene ether) resin, poly(alkenyl aromatic) resin and a hydrogenated block copolymer of an alkenyl aromatic compound and a conjugated diene, wherein the hydrogenated block copolymer has up to about 20 percent residual pendant aliphatic unsaturation and at least about 30 percent residual in-chain aliphatic unsaturation.

[c33] 33.The reaction product of a composition comprising a poly(arylene ether) resin, poly(alkenyl aromatic) resin and a hydrogenated block copolymer of an alkenyl aromatic compound and a conjugated diene, wherein the hydrogenated block copolymer has up to about 20 percent residual pendant aliphatic unsaturation and at least about 30 percent residual in-chain aliphatic unsaturation.

[c34] 34.A composition comprising
about 30 to about 55 weight percent of a poly(arylene ether) resin;
about 35 to about 65 weight percent of a poly(alkenyl aromatic resin); and
about 4 to about 20 weight percent of a hydrogenated block

copolymer of an alkenyl aromatic compound and a conjugated diene, wherein the hydrogenated block copolymer has up to about 20 percent residual pendant aliphatic unsaturation and at least about 30 percent residual in-chain aliphatic unsaturation, wherein all amounts are based on the total weight of the composition.